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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/473,047	12/28/1999	FUMIHIRO NAMIKI		9541

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EXAMINER
ROY, SIKHA

ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 09/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/473,047	Applicant(s) NAMIKI ET AL.	
	Examiner Sikha Roy	Art Unit 2879	

-- The MAILING DATE of this c mmunication appears on th cover sheet with the correspondenc address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *23 May 2002* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☒ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

The Amendment, filed on May 23, 2002 has been entered and is acknowledged by the Examiner. The Examiner notes that this is a Supplemental Action correcting the typographical error in the Previous Action as discussed in the Telephone Interview with the Applicant's Attorney Mr. Staas.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent 5,892,492 to Osawa et al.

Regarding claim 3 Osawa et al. disclose (column 3 lines 30-60, column 4 lines 20-32 Figs. 1 and 2) a gas discharge display (plasma display) apparatus having neon gas sealed in the discharge space for exciting three kinds of fluorescence material

provided inside the cells and an optical (wave band selecting) filter 11 formed over the screen for selectively absorbing light. Osawa further discloses (Fig.11) the optical filter has characteristics in which first and second peak absorbencies exist in the visible wavelength range, the wavelength of the first peak absorbency has a value at about 585 nm and the wavelength of the second peak absorbency is at about 500 nm.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2,4-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent 5,892,492 to Osawa et al. in view of U. S. Patent 5,218,268 to Matsuda et al.

Referring to claim 1, Osawa et al. disclose the invention as substantially claimed with the exception that Osawa et al. do not disclose the transmittance of the optical filter for the wavelength of 585 nm less than the transmittance for the wavelength of 450nm and that for the wavelength of 620 nm.

Matsuda et al. in relevant art of optical filter disclose (column 4 lines 39-66) an optical filter with characteristic of minimum transmissivity at the wavelength of 585nm (T_{min} = 575 ±20 nm). A maximum transmissivity occurs at the wavelength of about 450 nm to 620nm (620nm being less than 630 nm, the range of 450 to 620 nm is included in

the range of 450 to 630 nm) and an intermediate transmissivity is attained at the wavelength of 530nm. Matsuda et al. teach that the characteristic of the optical filter is such that the following relations are satisfied : $T_{585} < T_{450}$ and $T_{585} < T_{620}$ and $T_{530} < T_{450}$ where T_{585} being the transmittance at the wavelength 585 , T_{450} being the transmittance at the wavelength 450nm, T_{530} being the transmittance at the wavelength 530 nm and T_{620} being the transmittance at the wavelength 620nm. It is further noted that decrease in brightness can be prevented including this optical filter with excellent light selective transmissivity (column 2 lines 50-54) and hence contrast in display can be improved efficiently.

Therefore it would have been obvious to one having ordinary skill in the art at the time of invention to modify the optical filter of Osawa et al. by the characteristic light selective transmissivity and wavelength dependent absorptivity as taught by Matsuda et al. to prevent reduction in brightness and improve contrast and color purity in the display.

Claim 2 recites the limitation of having the peak absorbency wavelength within the range of 550 to 620nm as of claim 3 and hence is rejected for the same reason (see rejection of claim 3).

Referring to claim 4, Osawa et al. in view of Matsuda et al. disclose the claimed invention except for the transmittance T_{530} at the wavelength of 530 instead of the transmittance at wavelength of 525. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the transmittance at the wavelength 525 since it has been held that discovering an optimum value of a result

effective variable involves only routine skill in the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980). Hence claim 4 is rejected as the transmittance T_{525} of the optical filter is smaller than T_{450} other limitations being same as that of claims 2 and 3.

Referring to claims 5 and 18, Matsuda et al. disclose the following relationships

$T_{585} < T_{450}$ and $T_{585} < T_{620}$ and

$0.7 \leq (T_{450})/(T_{620}) \leq 1.43$.

Combining these relations it can be shown that the transmittance $T_{585\ is}$ smaller than 0.7 times T_{450}.

Referring to claim 6, combining the limitations of claim 4 (transmittance T_{525} is smaller than T_{450}) and claim 5 (T_{585} is smaller than 0.7 times T_{450}) the transmittance T_{585} is smaller than T_{525}.

Referring to claims 7 and 9, Osawa et al. disclose (column 6 lines13-15) that the optical filter 11in the plasma display panel is provided on the surface of the front glass substrate.

Referring to claim 8, Osawa et al. disclose (column 6 line 15) the optical is formed on the surface of the front glass by a process of thin film coating.

Referring to claim 10, Osawa et al. disclose (column 6 lines 49-51) the optical filters made of organic material such as polymide resin having superior transmittance and having absorption maximum in the wavelength range of 500 to 550nm and 560 to 620nm.

Referring to claim 11, Osawa et al. disclose (column 6 lines 29,30) the optical filter can be made more effective by subjecting the filter to non-glare treatment.

Referring to claim 12, Osawa et al. in view of Matsuda et al. disclose the invention substantially claimed with the exception of the wavelength of the first peak absorbency within a narrower ranger of 580 to 600nm and the transmittance of the optical filter smaller than .5 times the average transmittance in the blue wavelength region and the average transmittance in the green wavelength range being larger than transmittance at the first peak absorbency and smaller than the average transmittance in the blue wavelength range.

The range of 580 to 600 nm is narrower and hence is included in the range of 560 to 620nm, the optical filter has selective transmissivity with the wavelength of first peak absorbency as claimed and wavelength of second peak absorbency within the values of 500 to 550 nm as recited in the limitation of claim 3. T_{585}, the transmittance of the optical filter at the first peak absorbency is smaller than 0.7 times T_{450} as stated in the limitation of claim 5. The blue wavelength range being 430 to 450 nm it would be within the general skill of a worker in the art to specify the transmittance at first peak absorbency T_{585} smaller than 0.5 times that in the blue wavelength range. The transmittance at the green wavelength range is approximately same as T_{525} and is larger than T_{585}, the transmittance at the first peak absorbency and is smaller than T_{450} as recited in claims 4 and 6.

Claims 13 and 15 recite essentially the same limitations as of claim 7 and 9 and hence are rejected for the same reasons as claims 7 and 9(see rejection of claims 7 and 9).

Claim 14 discloses the same limitation as of claim 8 and hence is rejected for the same reason as claim 8.

Claim 16 discloses the same limitation as of claim 10 and hence is rejected for the same reason as claim 10.

Claim 17 discloses the same limitation as of claim 11 and hence is rejected for the same reason as claim 11.

Response to Arguments

Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U. S. Patent 5,178,955 to Aharoni et al. discloses use of antireflection coating on optical elements.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (703) 308-2826. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

S.R.

Sikha Roy
Patent Examiner
Art Unit 2879

ASHOK PATEL
PRIMARY EXAMINER